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November 30, 2001

Magalie Roman Salas, Secretary
Federal Communications Commission
445 Twelfth Street, S.W.
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Re: Revisions of the Commissions's Rules To Ensure Compatibility with
Enhanced 911 Emergency Calling Systems- CC Docket No. 94-102
Quantum Communications Group, Inc.
Petition for Waiver

Dear Ms. Salas:

Transmitted herewith, on behalf of Quantum Communications Group, Inc., is its Petition for Waiver of the Phase II enhanced 911 obligations (CC Docket No. 94-102).

If you have any questions regarding this matter, please contact the undersigned..

By:


John Kuykendall

Attachment

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Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

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FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

In the Matter of)
)
Revision of the Commission's Rules to Ensure)
Compatibility with Enhanced 911 Emergency)
Calling Systems)
)
Quantum Communications Group, Inc.)
Petition for Waiver of Sections 20.18(e))
of the Commission's Rules)

CC Docket No. 94-102

To: Chief, Wireless Telecommunications Bureau

PETITION FOR WAIVER

Quantum Communications Group, Inc. ("Quantum"), pursuant to Section 1.3 and 1.925 of the Commission's Rules,¹ hereby requests waiver of the Phase II enhanced 911 ("E911") obligations set forth in Section 20.18 of the Commission's Rules for its partitioned PCS C Block license which covers BTA 213.² Waiver is warranted due to the fact that the underlying purpose of the Rule would be frustrated by application to Quantum's PCS license and grant of the waiver would be in the public interest. To further the public interest, Quantum proposes a specific deployment schedule based upon representations made by handset-based solution vendors.

I. Background

Quantum's PCS license covers the Jacksonville, Illinois BTA (BTA213) and utilizes the switch owned and operated by TMP Corp. ("TMP"), the licensee authorized to provide service to the nearby BTA market of Quincy, Illinois-Hannibal, Missouri

¹ 47 C.F.R. §§ 1.3 and 1.925.

² 47 C.F.R. § 20.18.

(BTA367).³ After making a diligent search to identify a network-based, handset-based or hybrid E911 Phase II solution that meets the FCC's requirements,⁴ TMP determined that for its GSM network, a hybrid solution utilizing Enhanced Observed Time Difference ("E-OTD") technology is the most viable option.⁵ Accordingly, Quantum's PCS license will utilize an E-OTD hybrid technology.

To date, Quantum has not received a Phase I or a Phase II from a PSAP that is capable of receiving and utilizing the data elements and has a mechanism in place for recovering the PSAP's costs.

II. Waiver is Warranted

The standard for grant of a waiver of the Commission's Rules is that "the underlying purpose of the rule(s) would not be served or would be frustrated by application to the instant case, and that a grant of the requested waiver would be in the public interest."⁶ Quantum's waiver request meets these standards.

³ An application for assignment of Quantum's PCS license to TMP Jacksonville, LLC, an affiliate of TMP, is pending before the Commission. File No. 0000601103. TMP has also filed a waiver request that would allow for a fifteen-month deferral of each of the penetration benchmarks required for the handset portion of the hybrid solution.

⁴ TMP contacted its switch vendor, Tecore and its PCS vendor, Airnet, regarding possible solutions as well as several vendors including Cambridge Positioning Systems, Grayson Wireless, SnapTrack, Nortel, Nokia, Cell-Loc, Tendler Cellular and TCS/Xypoint.

⁵ See *In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems: Fourth Memorandum Opinion and Order*, 15 FCC Rcd 17442, 17461-62 (2000) (Commission noting that the E-OTD approach may be one of the only ALI solutions available in the near term for GSM systems); Request for Waiver made by Cingular Wireless LLC, filed on July 6, 2001 at 17 (Cingular noting that it and "virtually every other GSM carrier has indicated that it plans on deploying E-OTD").

⁶ 47 C.F.R. § 1.925(b)(3)(i).

A. The Underlying Purpose of the Commission's E911 Rule would be Frustrated by Application to the Instant Case

Requiring Quantum to meet the November 30, 2001 Phase II E911 deadline⁷ would frustrate the underlying purpose of the FCC's E911 Rules by jeopardizing the provision of service through imposition of financially burdensome and technically infeasible requirements. The FCC adopted its E911 Rules with the goal of "stimulat[ing] the application of wireless technology to improv[e] emergency 911 systems."⁸ The Commission recognized that this goal could not be accomplished without "research, testing and development requiring coordinated efforts by public safety organizations, wireless carriers, location technology vendors and equipment manufacturers."⁹ Due to concerns expressed by the carriers, vendors and manufacturers regarding the technical and financial feasibility of implementing E911 services, the FCC adopted a phased-in approach that is "rigorous without being impossible or commercially self-defeating."¹⁰ In

⁷ The Commission established a deadline of November 30, 2001 for small and mid-size wireless carriers subject to the Commission's wireless E911 Phase II Rules to either comply or file requests for relief from the rules. *See Commission Establishes Schedule for E911 Phase II Requests by Small and Mid-Size Wireless Carriers: Public Notice*, FCC 01-302 (rel. Oct. 12, 2001).

⁸ *In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems: Fourth Memorandum Opinion and Order*, 15 FCC Rcd 17442, 17458 (2000) ("Fourth MO&O").

⁹ *Id.*

¹⁰ *In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems: Report and Order and Further Notice of Proposed Rulemaking*, 11 FCC Rcd 18676, 18707 (1996) ("R&O"). *See Notice of Proposed Rulemaking* 9 FCC Rcd 6170, 6178 (1994) (FCC proposed a phased-in approach due to concerns about "technical and financial feasibility expressed by manufacturers and communications service providers").

addition, the Commission anticipated that waiver of its Rule might be required in situations where it is not economically or technologically feasible for a carrier to meet the phased-in deployment timetable.¹¹

1. Imposition of the Network Portion of the E911 Phase II Solution is Not Technically Feasible for Quantum at this Time

To date, Quantum has not received a Phase II request from a PSAP that is capable of receiving and utilizing the data elements and has a mechanism in place for recovering the PSAP's costs. Accordingly, Quantum is not currently required to provide the network portion of its hybrid Phase II E911 solution. However, in the event a request is made, Quantum has been coordinating with its switch provider, TMP regarding the availability and cost of the network portion of the E-OTD hybrid solution.

TMP has obtained information from its PCS vendor, Airnet, regarding the particular E-OTD solution that it plans to offer to its customers which is the Enhanced Observed Time Difference circular ("E-OTD-C") positioning method. This method requires handsets to provide measurement data to the Serving Mobile Location Center ("SMLC") in the network to calculate the location information. According to Airnet, the handset may require a software upgrade to perform this function.

Airnet plans to have the network component available during the first half of 2002 and will provide cost information after the network component has been fully tested. TMP and Quantum will continue to monitor the development and potential cost of the

¹¹ See, e.g., R&O at 18718 (noting that there may be exceptional circumstances where deployment of E911 may not be technically or economically feasible within the timetable allowed and stating that these cases can be dealt with through individual waivers); *U.S. Cellular, et al. v. FCC*, Case No. 00-1072, D.C. Cir., FCC Brief at 33 ("If a small or rural carrier can show that, in fact, it is uniquely disadvantaged by the technological or

network component in the event that Quantum receives a PSAP request.¹² Accordingly, as of the November 30, 2001 compliance deadline, the network component of the E-OTD hybrid solution is not technically feasible.

2. Imposition of the Commission's Implementation Schedule for the Handset Portion of the Solution is Not Technically Feasible for Quantum

Requiring Quantum to sell ALI-capable handsets to new customers under the current timetable would also frustrate the goal that the imposition of E911 requirements be technically feasible. Quantum has not been able to identify any location technology vendors or equipment manufacturers that currently produce ALI-capable phones for GSM systems. According to comments filed with the Commission, Nokia and Motorola state that they plan to include E-OTD in all future GSM handsets.¹³ However, the E-OTD technology will not initially meet the FCC's handset-based accuracy requirements.¹⁴ Accordingly, as of the November 30, 2001 compliance deadline, the handset component of the E-OTD hybrid solution is not technically feasible.

economic demands imposed on it by the FCC's E911 implementation schedule, the waiver procedure is available for it to seek appropriate individualized relief").

¹² See *In the Matter of Revision of the Commission's Rules To Ensure Compatibility with Enhanced 911 Emergency Calling Systems: Third Report and Order*, 14 FCC Rcd 17388, 17411 (1999) ("[t]o the extent that hybrid ALI approaches are deployed, any non-handset based equipment or operations that are needed should be in place when the PSAP has satisfied the applicable conditions and is ready to use ALI information. This requirement is identical to those that we apply to purely network-based technologies and subject to the same conditions").

¹³ See Comments of Nokia, Inc., CC Docket No. 94-102, filed May 7, 2001; Comments of Motorola, Inc., CC Docket No. 94-102, filed May 7, 2001.

¹⁴ See *In the Matter of Request for Waiver by AT&T Wireless Services, Inc.: Order*, CC Docket No. 94-102, FCC 01-294 at paras. 9 & 14 (rel. Oct. 12, 2001); *In the Matter of Request for Waiver by Cingular Wireless LLC: Order*, CC Docket No. 94-102, FCC 01-296 at para. 15 (rel. Oct. 12, 2001).

3. Imposition of the E-OTD Solution is Not Economically Feasible

Because manufacturers have yet to finalize development of either the network or handset components of the E-OTD hybrid solution, the cost of deploying such a solution is not yet known. Accordingly, Quantum has been unable to budget for such costs which could prove to be exorbitantly expensive. By eliminating a critical precondition for implementation of E911 service, that a carrier cost recovery mechanism be in place, the Commission placed a heavy financial burden on small and rural carriers which diverts the limited financial resources away from system build-out and improved services. Accordingly, as of the November 30, 2001 compliance deadline, the E-OTD hybrid solution is not financially feasible for Quantum.

B. Waiver Would be in the Public Interest

Quantum is not requesting a blanket waiver of the Commission's E911 Phase II requirements but rather requests waiver only to the extent that these requirements cannot be accomplished in a technically or economically feasible way. Accordingly, Quantum seeks an extension of the deadline to allow it to implement a hybrid solution in the most efficient and expeditious manner.

Based upon the representations made by handset manufacturers, Quantum seeks a fifteen-month deferral of each of the penetration benchmarks in Section 20.18(g)(1)(i)-(iv) to begin selling handsets that are E-OTD-capable. Quantum does not seek any change to the December 31, 2005 deadline for 95 percent penetration of location-capable handsets. Therefore, Quantum seeks a waiver to proceed according to the following timetable:

- (i) Begin selling and activating location-capable handsets no later than January 1, 2003;¹⁵
- (ii) Ensure that at least 25 percent of all new handsets activated are location-capable no later than March 31, 2003;
- (iii) Ensure that at least 50 percent of all new handsets activated are location-capable no later than September 30, 2003; and
- (iv) Ensure that 100 percent of all new digital handsets activated are location-capable no later than March 31, 2004 and thereafter.
- (v) By December 31, 2005, achieve 95 percent penetration of location-capable handsets among its subscribers.

Such an extension would allow time for manufacturers to complete development of E-OTD-capable handsets and enable Quantum to grow its subscriber base so that it can continue to provide competitive service while incurring the costs of deploying E911 services.

As a smaller carrier, Quantum is not in a position to command its handset vendors to supply ALI-capable handsets on the type of schedule that can be achieved by large carriers with nationwide footprints such as Cingular Wireless LLC (“Cingular”). Therefore, even though this schedule calls for a somewhat slower start-up and phase-in of ALI-capable handsets than the schedule approved by the Commission for Cingular,¹⁶ it is an aggressive schedule for Quantum. Moreover, as mentioned above, the proposed

¹⁵ The initial E-OTD-capable phones will meet the FCC’s network, but not the handset accuracy requirements. TMP anticipates being able to sell E-OTD-capable phones that meet the FCC’s handset accuracy requirements by October 1, 2003 based upon industry expectations that the E-OTD solution will improve to meet the accuracy requirements by that date. However, TMP will continue to monitor the development of this technology and will consider alternative technologies if the E-OTD solution does not improve to meet the accuracy requirements by October 1, 2003.

¹⁶ *In the Matter of Request for Waiver by Cingular Wireless LLC: Order*, CC Docket No. 94-102, FCC 01-296 at para. 28 (rel. Oct. 12, 2001).

schedule does not alter the December 31, 2005 deadline for having 95% of the embedded customer base with ALI-capable handsets.

Imposition of financially burdensome and technically infeasible requirements would jeopardize the provision of competitive service. Quantum has only recently begun to provide service. Accordingly, it has a very small subscriber base. Without the ability to spread the high costs of an E911 solution over a large subscriber base, the cost of deploying the network component would prove to be prohibitively expensive. Additionally, the imposition of costly upgrades at this early stage in the development of the wireless company would place the carrier at a competitive disadvantage. The larger, more established wireless carriers that compete with Quantum are able to spread the costs of E911 compliance into their larger subscriber bases. To impose financially burdensome requirements on Quantum while it is still in its start-up mode would further disadvantage the new competitor and could potentially drive the new company out of business, depriving the public of a wireless competitor in the Jacksonville, Illinois market.

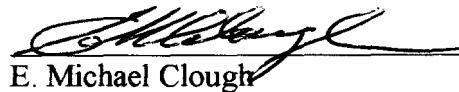
III. Conclusion

Because implementation of the FCC's E911 Phase II implementation requirements are not technically or financially feasible at this time, Quantum requests a waiver of the requirements. The requested waiver would allow for a fifteen-month deferral of each of the penetration benchmarks required for the handset portion of the hybrid solution. Grant of this waiver request would be in the public interest as it would allow time for manufacturers of GSM handsets to fully develop solutions and allow for the advancement of a newly formed competitive wireless service provider.

Respectfully submitted,

**QUANTUM COMMUNICATIONS GROUP,
INC.**

By:



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November 30, 2001

CERTIFICATE OF SERVICE

I, Naomi Adams, do hereby certify that a copy of the foregoing "Petition For Waiver" for Quantum Communications Group, Inc. was served on this 30th day of November 2001, via hand delivery to the following parties:



Naomi Adams

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